User Manual

MSO Plus

- Multiple Zones Display
- Auto Media Update
- Daily Schedule
- Client Billing Log

USER MANUAL Revision 1.13

Distributed by
i-Tech Company LLC

TOLL FREE: (888) 483-2418
EMAIL: info@i-techcompany.com
WEB: www.i-techcompany.com

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CHAPTER 1

MSO Plus Utility

- ✓ Client/Group Management
- ✓ Media Collection
- ✓ Schedule Setting
- ✓ Play List Edition
- ✓ Program Configuration

Note that in version 1.08 or earlier, once you update firmware to XXX version, you MUST use the same version of MSO Plus for client management. From version 1.09, you can use MSO Plus V1.09 to communicate with NP units with firmware version 1.09 or later.

	Firmware version 1.08 or earlier	Firmware version 1.09 or later
Management Software (MSO Plus)	MSO Plus must be the same version as firmware	MSO Plus could be version 1.09 or later

1.1 Minimum System Requirement

To install the Media Signage Organizer Plus, the minimum requirements are:

- OS: Windows XP/2000
- System Requirement: Pentium III 1GHz or better, 128 MB RAM or better
- Window Media Player 9 or later

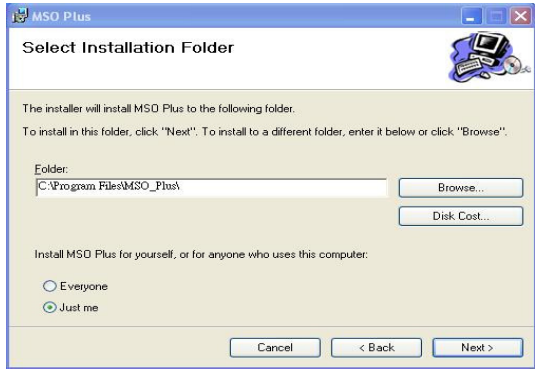
1.2 MSO Plus Installation

1. Load the MSO Plus Setup from CD-ROM into your computer.
2. If you have installed easier version of MSO Plus, please uninstall before you continue the following steps*[1].
3. Double click the “setup.exe” icon and the setup utility will start with the welcome screen, click “Next” button to continue.

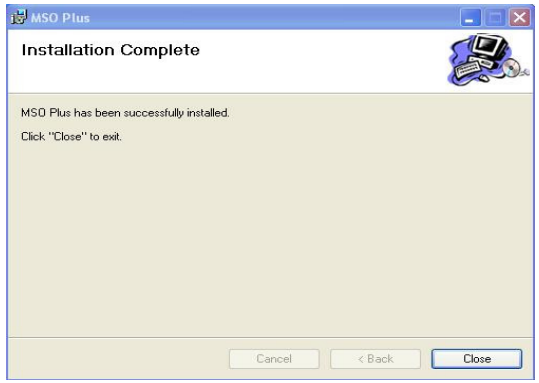
MSO Plus
Welcome to the MSO Plus Setup Wizard
The installer will guide you through the steps required to install MSO Plus on your computer.
WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.
Cancel
< Back
Next >

[1] Please remove MSO from Control Panel if you cannot uninstall MSO successfully from Start menu.

4. The setup utility will choose a default folder to install the MSO files. Click “**Browse**” to browse to the folder you would like to install MSO. Click “**Next**” to continue installation process.


MSO Plus
Select Installation Folder
The installer will install MSO Plus to the following folder.
To install in this folder, click "Next". To install to a different folder, enter it below or click "Browse".
Folder:
C:\Program Files\MSO_Plus\
Browse...
Disk Cost...
Install MSO Plus for yourself, or for anyone who uses this computer:
Everyone
Just me
Cancel
< Back
Next >

5. The MSO utility is now installed. Click the **“Close”** button to complete the installation.



The factory setting for every Network Player Plus is listed below.

Factory LAN Setting

IP mode	DHCP
IP port	8001,8002,8003*[2]
Server IP (the IP that NP Plus connects to automatically)	192.168.0.188

[2] If your PC is behind a firewall, please make sure port 8001, 8002, 8003 are open. Please refer to the **Troubleshooting** section in this manual for detail on setting firewall exceptions.

The default IP mode is DHCP and it will automatically switch to Fixed mode if no IP is assigned to Network Player unit.

IP mode	Fixed
LAN IP	192.168.0.128
LAN Subnet Mask	255.255.255.0
LAN Gateway	192.168.0.1

Factory Wireless LAN Setting

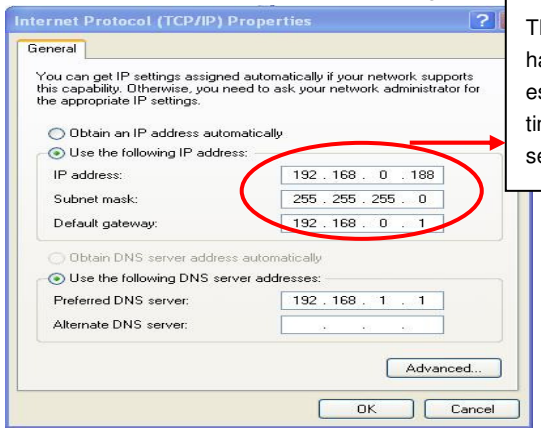
WLAN IP	192.168.252.249
WLAN Subnet Mask	255.255.0.0

Network Player Plus connects to the server actively; therefore, you will need to either change the IP that NP Plus connects to or configure the IP address of your PC to establish communication channel. We provide a utility to configure client settings in you PC and use USB flash drive to apply those configurations in Network Player unit. Please refer to **4.10.6 Export Client Config to Local Drive** for more detail.

If you choose to change the IP address of your PC, please make sure your desktop or laptop's IP address comply the following rules.

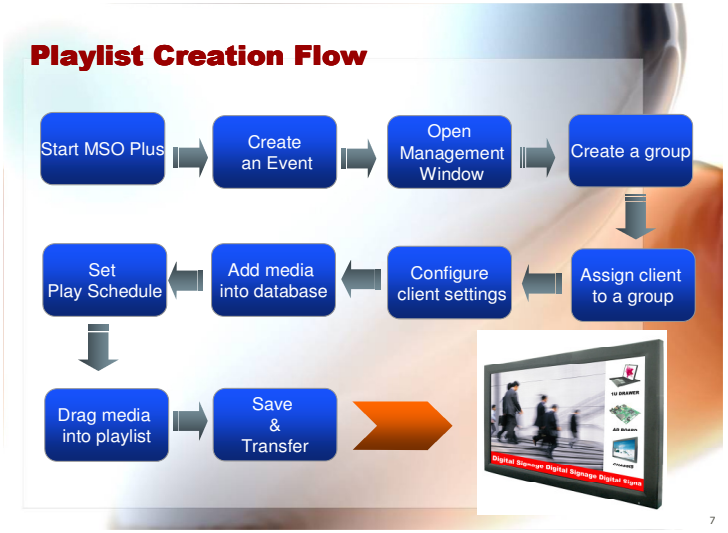
Path to call Internet Protocol(TCP/IP) Property:

- Click Start→Control Panel→ Double-click on Network Connections.
- Right-click on Local Area Connection → select Properties.
- On General tab , double click Internet Protocol (TCP/IP)
- Setup client IP
- Click **OK** to confirm the setting


Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address: 192 . 168 . 0 . 188
Subnet mask: 255 . 255 . 255 . 0
Default gateway: 192 . 168 . 0 . 1
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server: 192 . 168 . 1 . 1
Alternate DNS server:
Advanced...
OK
Cancel

The IP address of your server PC has to be 192.168.0.188 in order to establish connection in the first time. Then you are free to set the server IP address.

After the configuration of server IP, you can use a crossover cable or a hub to connect client and server.



1.3 Starting the MSO Plus

1. Click MSO Plus icon on your desktop.

2. If this is the first time you start the MSO Plus, a pop-up window will guide you to set up your own password.*[3]

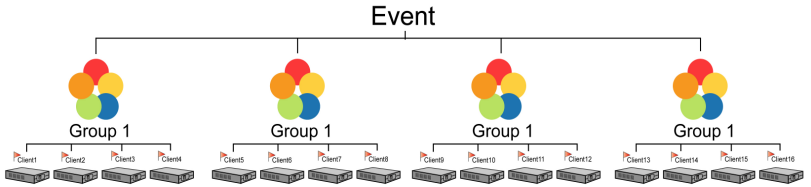
3. Enter your password and choose language*[4] from drop-down menu.
4. Click the "**Enter**" button to start MSO Plus.

[3] The length of password has to be at least 6 alphanumeric characters. We strongly suggest you select a password consisting of uppercase and lowercase letters, numbers, and special characters.
[4] Currently there are four languages available: English, Japanese, Simplified Chinese, and Traditional Chinese.

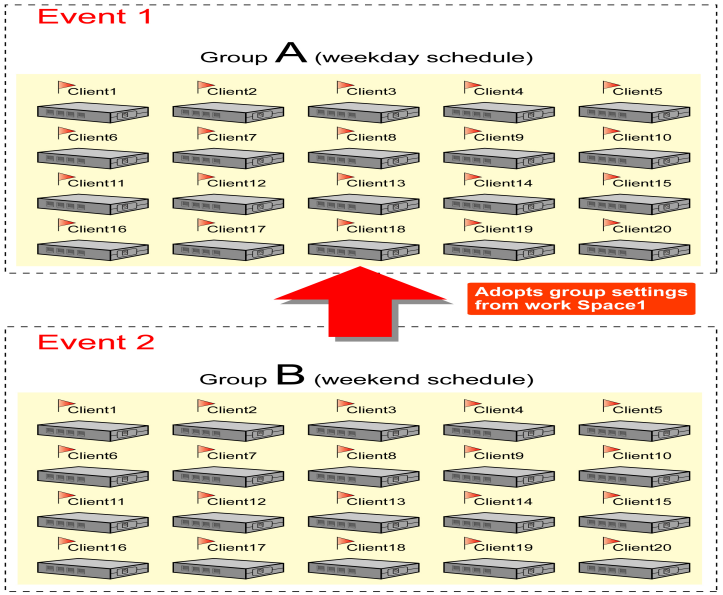
1.4 Event

The client management in MSO Plus is based on hierarchical concept. The highest level in this hierarchy is Event, followed by Group and Client. Every Client belongs to a Group and every Group belongs to an Event. Each time you have to load an Event and work on it.

Hierarchical Concept of Client Management



Instead of doing all the settings from scratch, you can also copy client configurations from an existent Event when you create a new Event. This feature would be really useful when you need to create a bunch of existent clients but in different Event. For instance, if you have 20 clients in Group A (in Event 1) which has playback schedule for weekdays and you would like to create a Group B (in Event 2) having the same 20 clients for weekend schedule. You can simply make Event 2 to inherit settings from Event 1 without adding 20 clients in Group B over again.



Example 1: hierarchical structure in a shopping center

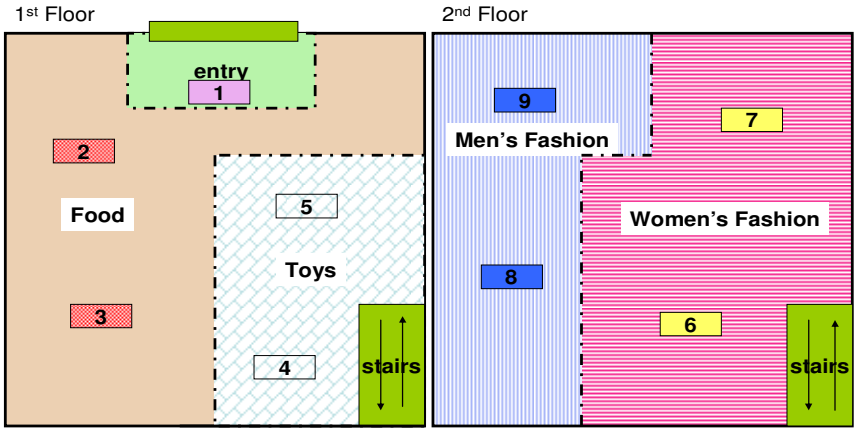
Layout of building:

- 1st Floor: Entry, Food & Toys
- 2nd Floor: Women's Fashion, Men's Fashion

Customer would like:

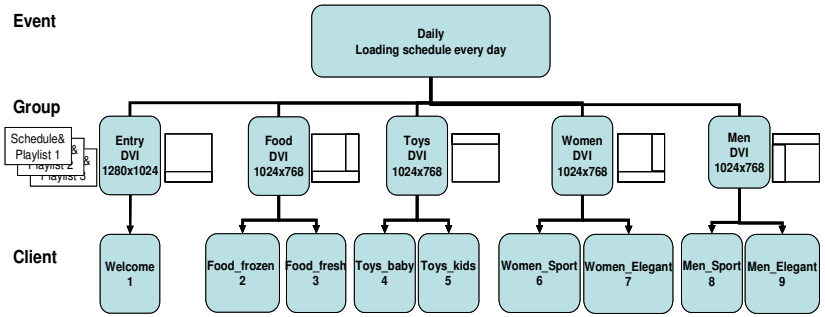
- Place a 32" NP in the Entry to welcome customers and inform them about news and events
- Play daily and seasonal promotions in the food court
- Play cartoon, new games and toys Ad in Toys department
- Play individual fashion shows in Men's and Women's department, with information about brand and style

Layout of Shopping Center



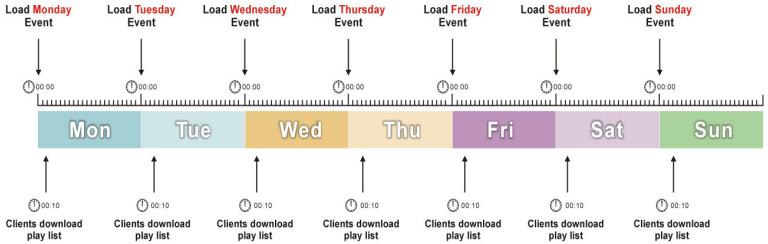
In order to apply the hierarchical structure of a shopping center, you will need to create an Event which loads schedule everyday. You will also need to create Groups under the Event: Entry, Food, Toys, Women, and Men. Each group has its own clients.

Hierarchical View of Clients



Example 2: How to utilize Event setting up different daily playlist?

In order to have different playlist everyday from Sunday to Saturday, you will need to create 7 Events and each applies its loading type. Note that loading an Event in MSO Plus does not apply playlist to clients automatically, clients still need to download media playlist from server.



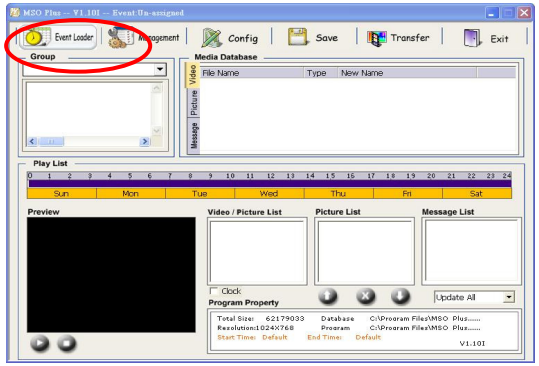
1.4.1 *Create an Event*

1. Click the "**Event Loader**" button in MSO Plus.
2. Click the "**New**" button, then a dialog will pop up on the screen.
3. Enter Event Name*[5] and Event Loading Type*[6].
4. Click the "**Copy the group setting from following event**" check box and select the Event if you would like to copy its group/client setting.

[5] Event name can be ASCII and non-ASCII character.
[6] The priority of loading type is: specific day > every weekday/weekend > everyday.

5. Click the "**Copy Play List Simultaneously**" check box if you would like to copy the event's play list.

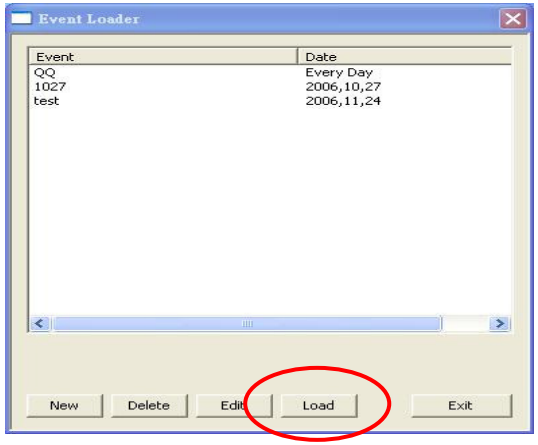
6. The system will load the new Event automatically once you click the **OK** button.



1.4.2 *Load an Event*

If you have existent Events, you can choose one to load its client setting and database.

1. Click the "**Event Loader**" button in MSO Plus.
2. Click on the Event you would like to load.
3. Click the "**Load**" button to load the Event.



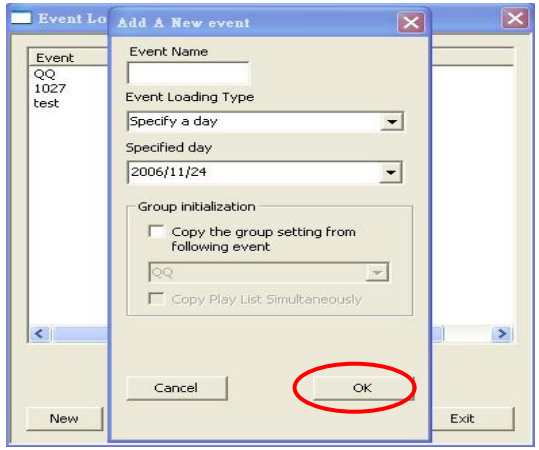
1.4.3 *Edit an Event*

You will be able to change Event Loading Type in Edit.

1. Click the "**Event Loader**" button in MSO Plus.
2. Click on the Event you would like to edit.

3. Click the "**Edit**" button to open the edit window.

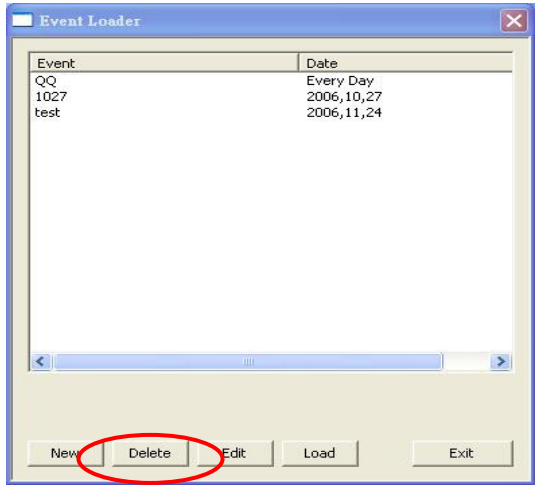
4. Select Event Loading Type from drop-down menu and click **OK** to save changes.



1.4.4 *Delete an Event*

You may delete a Event if you no longer need it in the system.

1. Click the "**Event Loader**" button in MSO Plus.
2. Click on the Event you would like to delete.
3. Click the "**Delete**" button to delete the Event.



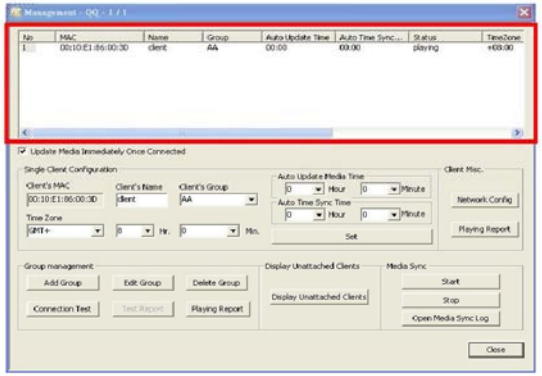
1.5 Client/Group Management

MSO Plus is very powerful in client and group management. You will be able to:

- Create/Delete/Edit Clients and Groups
- Set Client Auto Update Time/Auto Time Sync Time
- View Client Status
- Set Client Time Zone
- Configure Client's Network Setting
- Acquire Client/Group Playing Report

1.5.1 Management Window

1. Click the "**Management**" button in MSO Plus to bring up the management window.



The management window contains client information including client MAC address, client name, the group that the client belongs to, auto update time, auto time sync time, client status*[7], client's time zone, client firmware version, used disk space of client, and total disk space of client.

1.5.2 New Group Creation

Every client needs to be assigned to a group. Follow the steps below if you would like to create a new group

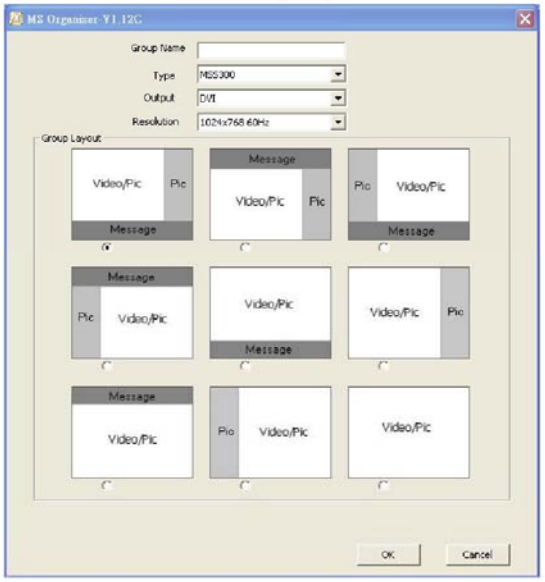
1. Click the **"Add Group"** button in **Group Management** area, then a dialog with Program Name, Group Type, Output, Resolution, and Layout will pop up on the screen.

[7] Client status is either playing or sleep.

2. Enter the program name*[8].
3. Select the group type*[9].

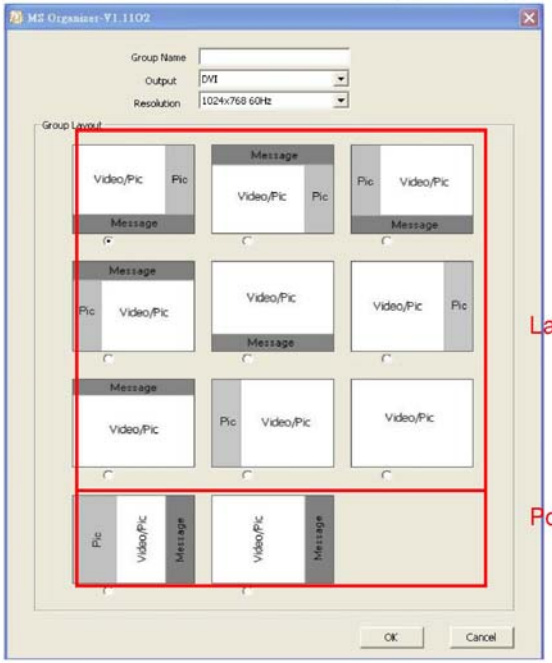
Network Player series	Group Type
WMSS300	WMSS300
WMSS500	WMSS500
WMSS600	WMSS600

4. Select the video output*[10] (DVI/S-Video).
5. Select the resolution, default resolution is 1024x768 60Hz.
6. Select the layout*[11].
7. Click **OK** to add a new group.



[8] Group name can be ASCII and non-ASCII character.
[9] You MUST choose the correct group type depends on your Network Player device. The Media Update will fail if you assign a client to an incorrect group type.
[10] If you choose S-Video as video output, you can only choose PAL_BG or NTSC_M in Resolution.
[11] The Portrait Mode Layout is only available in Portrait Mode MSO Plus.

MSO Plus with Portrait Mode (optional)



Landscape Mode Layout

Portrait Mode Layout

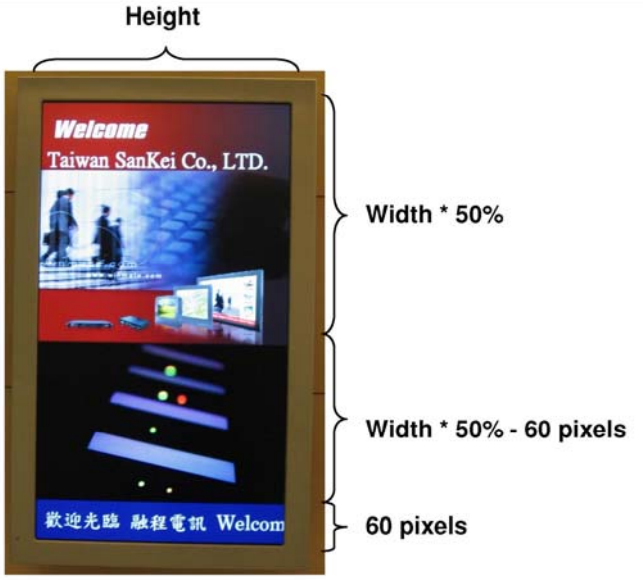
General Zone Size Description

Output Resolution V.S Zone Size (in pixel)

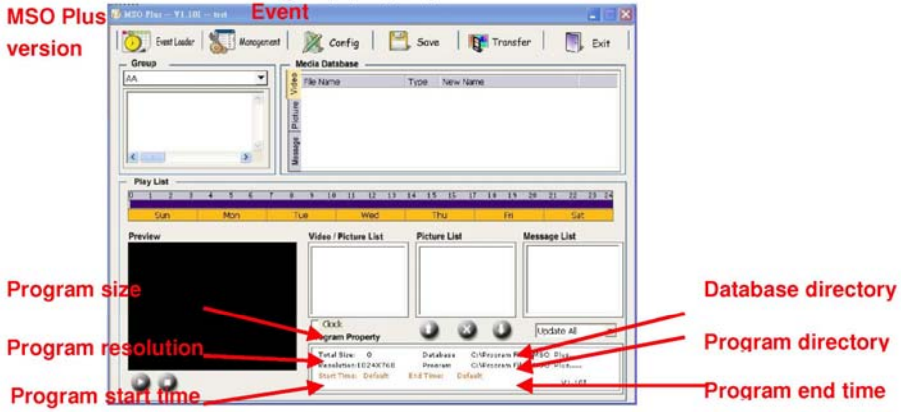
Output Resolution	Video/Pic Zone	Pic Zone	Message Zone
640 x 480	512 x 420	128 x 420	640 x 60

800 x 600	640 x 540	160 x 540	800 x 60
1024 x 768	820 x 708	204 x 708	1024 x 60
1280 x 768	1024 x 708	256 x 708	1280 x 60
1280 x 960	1024 x 900	256 x 900	1280 x 60
1280 x 1024	1024 x 964	256 x 964	1280 x 60
1360 x 768	1088 x 708	272 x 708	1360 x 60
1600 x 1200	1280 x 1140	320 x 1140	1600 x 60
1920 x 1080	1536 x 1020	384 x 1020	1920 x 60

WMSS500/ 600 group only

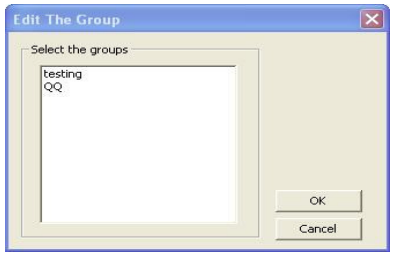


8. You can view group property in the bottom of MSO Plus main window.

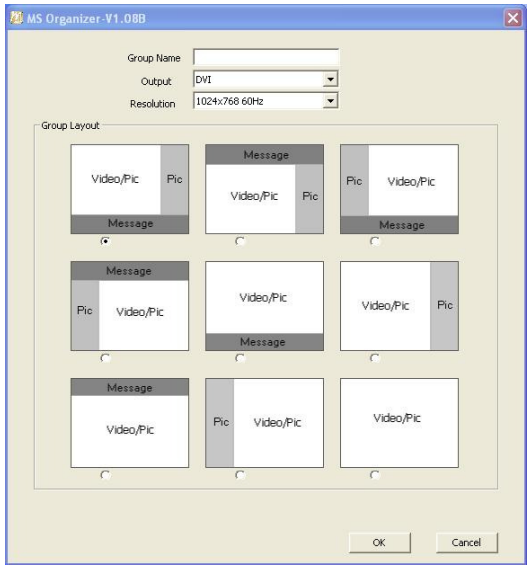


1.5.3 *Group Edition*

1. Click the "**Edit Group**" button in **Group Management** area to edit existent group properties.
2. Choose a group from the pop-up window and click **OK** to bring up the group setting window.



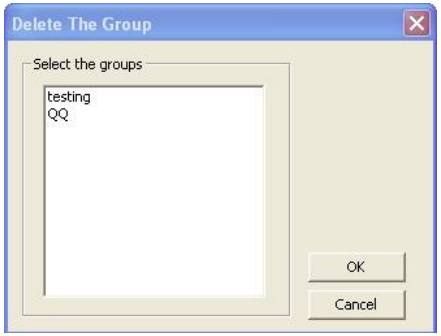
2. You will be able to change Output, Resolution, and Layout of a group.



1.5.4 *Group Deletion*

1. Click the "**Delete Group**" button in **Group Management** area to delete an existent group.

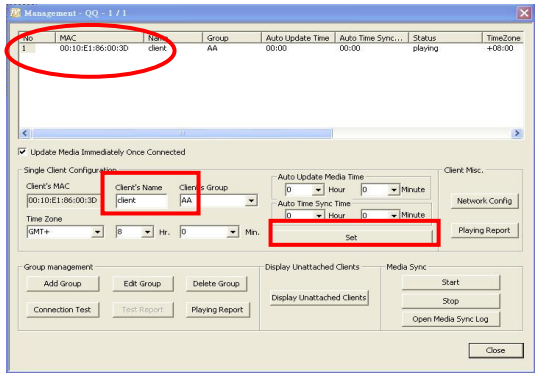
2. Choose a group from the pop-up window and click **OK** to confirm the deletion.



1.5.5 *Change a Client's Name*

The default name of every client is **DEMO** if you do not change it. Follow the steps below if you would like to change a client's name.

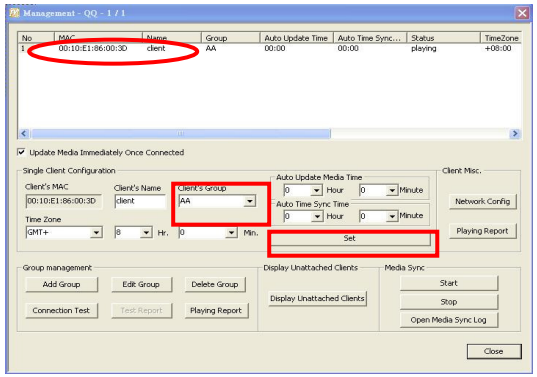
1. Highlight the MAC address of the client in Management window that you would like to change its name.
2. Click the **Client's Name** field in **Single Client Configuration** area.
3. Type in client's name.
4. Click the "**Set**" button to apply the modification.



1.5.6 *Assign a Client to a Group*

The default group of every client is **Un-assigned** if you do not change it. Each client MUST belong to a group to retrieve media playlist. Follow the steps below if you would like to assign a client to different group.

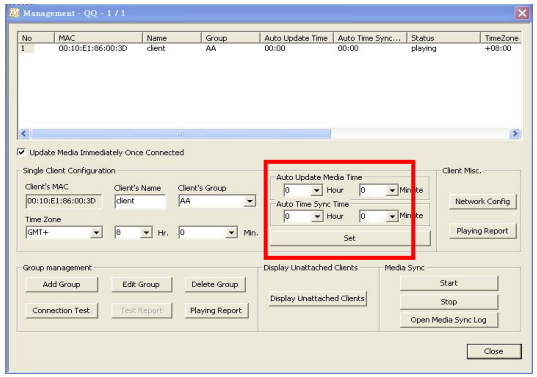
1. Highlight the MAC address of the client in Management window that you would like to change its name.
2. Choose a group from the drop-down menu in **Single Client Configuration** area.
3. Click the "**Set**" button to apply the modification.



1.5.7 *Client Auto Update Media Time Setup*

In MSO Plus, you will be able to make a client to update media content from server automatically in a pre-defined time. **Note that the client and server must stay online to have data transmission**.

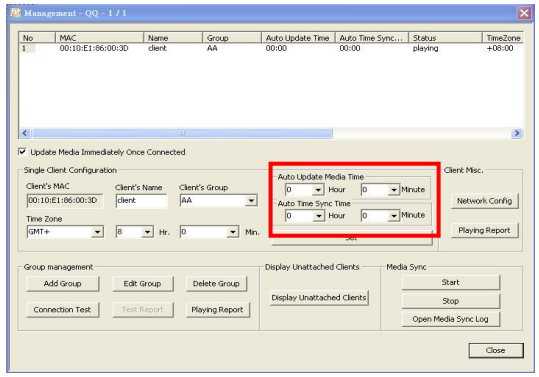
1. The default **Auto Update Media Time** is 00:00.
2. Click the Up/Down button in **Auto Update Media Time** to set the auto update time.
3. Click the "**Set**" button to apply the modification.



1.5.8 *Client Auto Time Sync. Time*

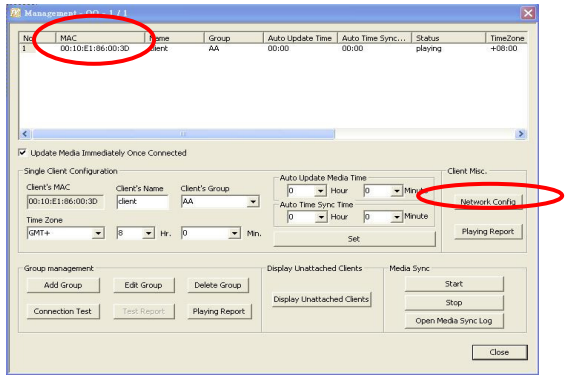
You can make a client to synchronize its time clock with server in a pre-defined time. Note that the client and server must stay online to do time synchronization.

1. The default **Auto Time Sync Time** is 00:00.
2. Click the Up/Down button in **Auto Time Sync Time** to set the auto update time.
3. Click the "**Set**" button to apply the modification.



1.5.9 *Client Network Configuration*

1. Highlight the client you would like to configure its network.



2. Click the "**Network Config**" button in **Client Misc**.

3. Make modifications in IP Mode*[12]/Client LAN Config*[13]/Client WLAN Config*[14]/RS232 config/Auto Reboot Time/Boot Information*[15]/Remote Control*[16], then click "**Set**" button in each area.

- **Baud Rate, Client ID Setup**

Baud rate indicates the number of bits per second is transmitted. Normally five values can be chosen: 9600, 19200, 38400, 57600, and 115200. The default baud rate of Network Player is 38400.

You can give each client a number as client ID for identification. The value is limited and has to be 0~254.

1. Click "**Set**" after entering valid Baud Rate and Client ID.

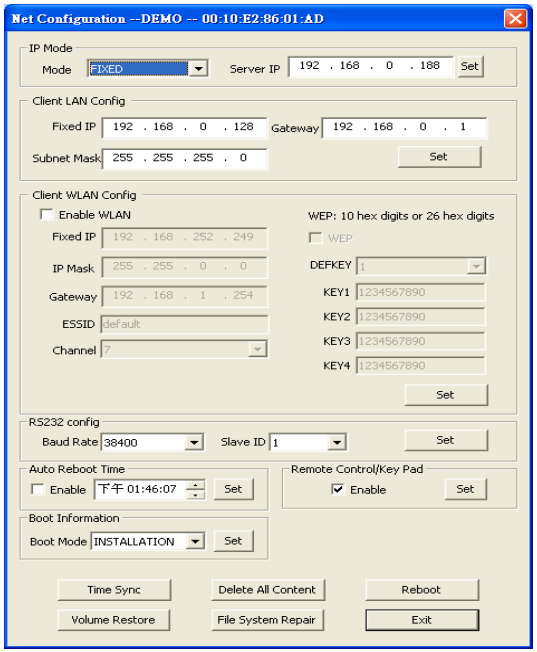
[12] The default IP mode is DHCP and it will automatically switch to Fixed mode if no IP is assigned to Network Player unit.

[13] LAN and WLAN ports are able to work simultaneously, however, they should be in different subnet. If LAN and WLAN are in the same subnet, the LAN's priority is higher than WLAN. In this case, WLAN is inactive. Contact your system administrator for setting information.

[14] The Network Player does not support Ad-hoc mode WLAN. You should always use a WLAN AP to connect the Network Player unit. The WEP key must be hexadecimal.

[15] The default boot mode is INSTALLATION mode, which will display all client information such as IP, MAC address, subnet mask, server IP, storage, and firmware version in boot-up screen. The NORMAL mode will only show boot-up picture without displaying any sensitive client information.

[16] The remote control function is enabled by default. You can disable the remote control function if uncheck the Enable checkbox.



4. Click the "**Time Sync**" button to synchronize the client time with server immediately.

5. Click the "**Delete All Content**" button to clear the internal storage of a client.

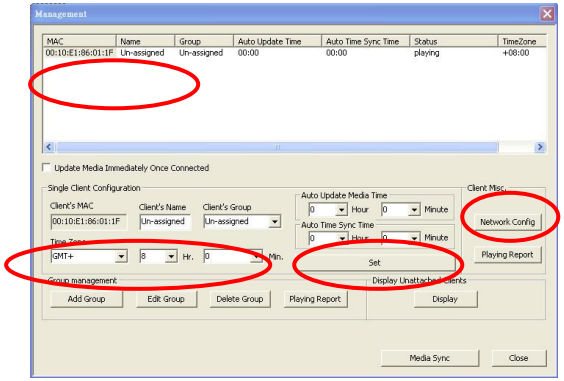
6. If you ever use remote control to adjust volume of integrated Network Player LCD, volume adjustment via network will be disabled after since. You can click the "**Volume Restore**" button to restore default volume setting (50 out of 100 maximum) and gain the volume control back.

7. The "**File System Repair**" function allows the system to check disk and auto repair broken segments.

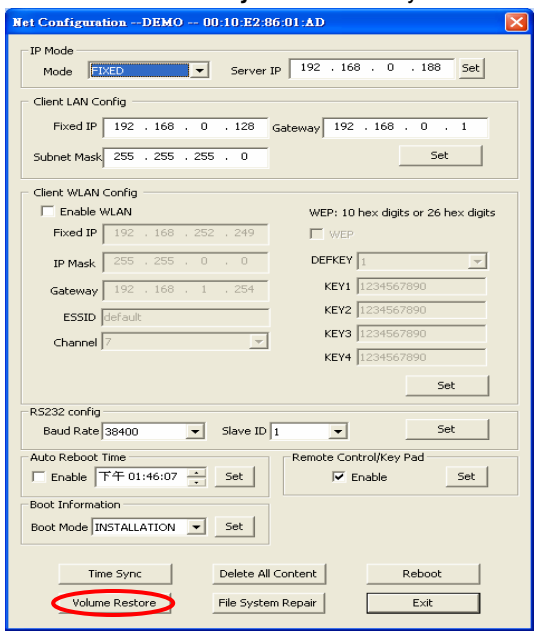
8. Click the "**Exit**" button to exit the Client Network Configuration window.

1.5.10 *Client Time Sync*

1. Highlight the client you would like to synchronize its time clock.



4. Select the Time Zone from the drop-down menu*[17].
5. Click the "**Set**" button to save the setting.
6. Click the "**Network Config**" button in **Client Misc**.
7. Click the "**Time Sync**" button to synchronize the system time.

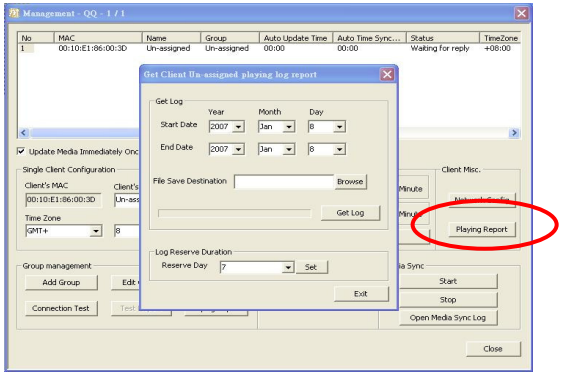


[17] The default time zone is set as GMT+ 8 hrs. You will need to apply the daylight saving by yourself.

1.5.11 *Client Log Reports*

The Get Log function is ideal for retrieving playing logs from clients/group. MSO Plus generates three files for your convenience to view the client log.

1. Highlight the client you would like to generate its playing log
2. Click the "**Playing Report**" button in **Client Misc**. to bring up the **Get Log** window.
3. Click on the drop-down menu to specify the start date and end date you would like to view the log reports.



4. Click "**Browse**" to specify the destination you would like to save the log reports.
5. Click "**Get Log**" to start downloading log files. Three files will be produced for your convenience to view the client log.

xxx.csv	Can be imported to EXCEL for statistics.
ClientBaseInfo.txt	Contains file name and total playback time based on each client.
FileBaseInfo.txt	Contains client name and total playback time based on each file.

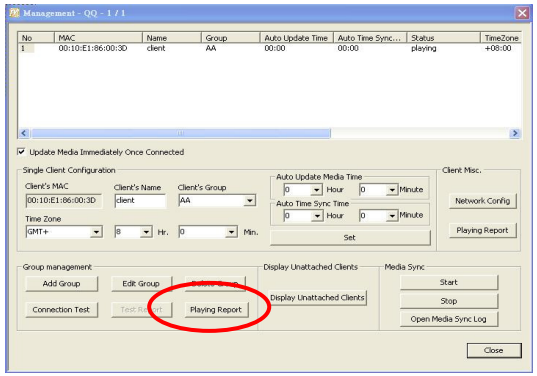
6. Set Reserved Log Duration (optional)

The default client log duration is set to be 7 days. You can set the reserved log duration from 1 to 30 days. Note that the more days you keep the log file, the more storage space it occupies.

1.5.12 *Group Log Reports*

The Get Log function is ideal for retrieving playing logs from clients/group. MSO Plus generates three files for your convenience to view the client log.

1. Click "**Playing Report**" button in Group Management to get the log reports of all clients within a group.



2. Click on the drop-down menu to specify the start date and end date you would like to view the log reports.

3. Click "**Browse**" to specify the destination you would like to save the log reports.

4. Click "**Get Log**" to start downloading log files. Three files will be produced for your convenience to view the client log.

xxx.csv	Can be imported to EXCEL for statistics.
ClientBaseInfo.txt	Contains file name and total playback time based on each client.
FileBaseInfo.txt	Contains client name and total playback time based on each file.

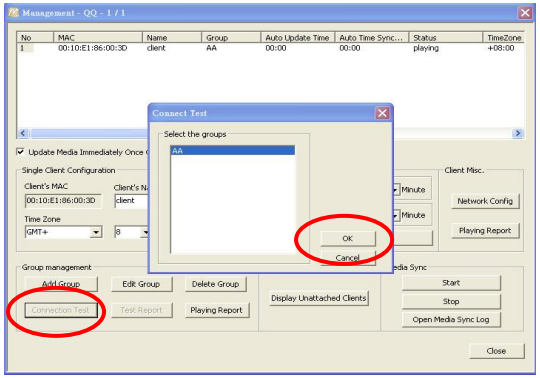
5. Set Reserved Log Duration (optional)

The default client log duration is set to be 7 days. You can set the reserved log duration from 1 to 30 days. Note that the more days you keep the log file, the more storage space it occupies.

1.5.13 *Connection Test*

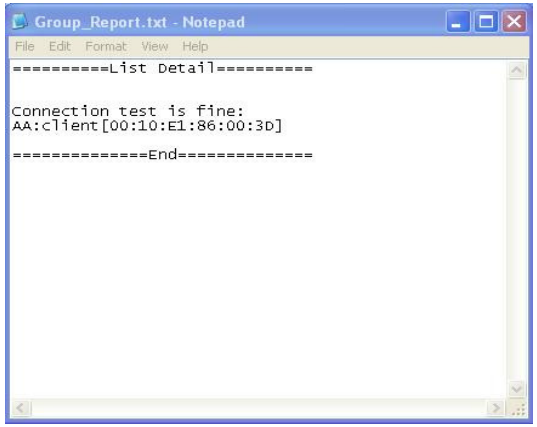
You can do group Connection Test to be sure about the client network connection before media transmission.

1. Click "**Connection Test**" in Group Management.
2. Highlight the group you would like to test.
3. Click "**OK**" to proceed the connection test.



4. The test result will be shown in a pop-up window.
5. Click "**OK**" to save the Connection Test Report, otherwise click "**Cancel**".

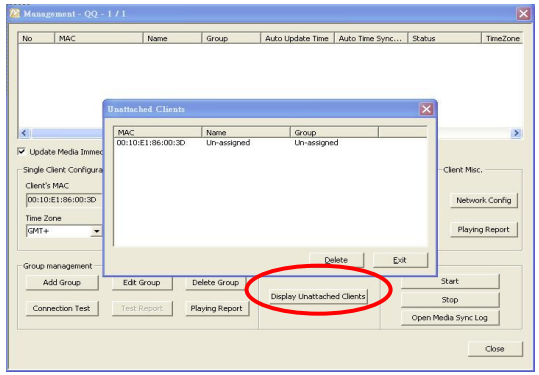
6. Click "**Test Report**" in Group Management to view the saved connection test report as the sample below.



1.5.14 *Unattached Clients*

You can view clients that have ever connected to the server but currently not online.

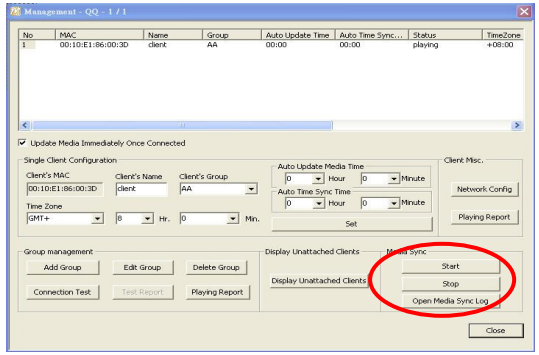
1. Click the **Display Unattached Clients** button in Management window to view offline clients.



1.5.15 *Media Sync.*

Use the "**Media Sync**" function if you would like to update play list immediately according to current time. For instance, you have created Event Wednesday and Event Thursday previously. Today is Wednesday and you are working on Event Thursday to edit its play list. When you click the "**Media Sync**" button, the clients will download play list in Event Wednesday instead of the Event you are working on.

1. Click "**Start**" to in Media Sync. to initiate the media synchronization*[18].



2. Click "**Stop**" to terminate media synchronization if you decide to do this later on.

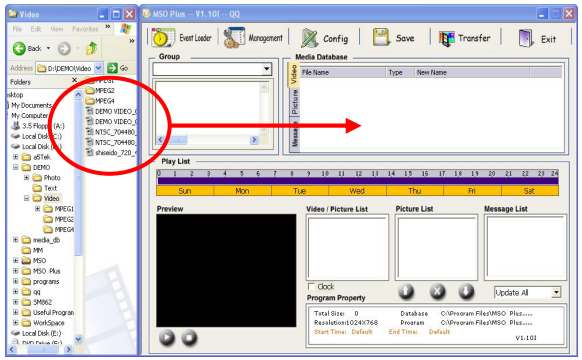
3. Click "**Open Media Sync Log**" to view all recorded Media Sync activities. The sample log is shown below.

[18] If in any circumstance the network is disconnected during Media Sync. process, the Network Player will resume the Media Sync. when the network is connected again.

1.6 Media Collection

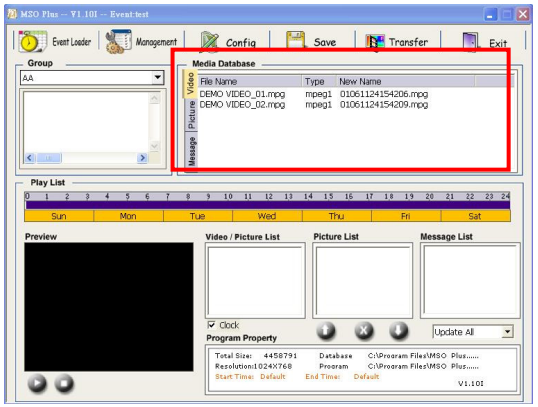
Video

1. Drag video file(s) from Windows Explorer and drop to the “Media Database”. (Only valid files can be added in repository *[19])



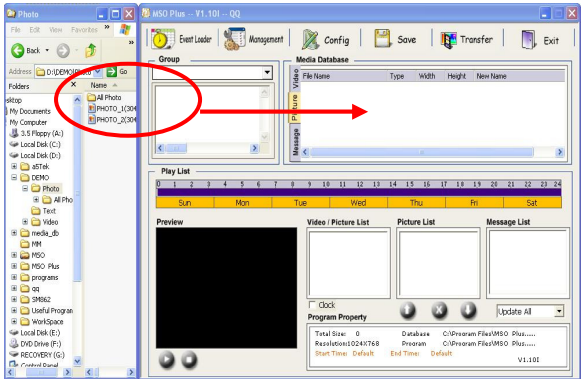
2. Media file will be identified with a normalized ID when being added into the "Media Database". This ID will be used to specify the file in the application and as the filename while exported to an external storage device.

[19] Acceptable movie formats: MPEG-1, MPEG-2, MPEG-4 (.mpg, .vob, .mp4, .avi(divx)). Please refer to Appendix A for supported video format.



Graphics

1. Drag graphic file(s) from Windows Explorer and drop into the “Media Database”. (Only valid files can be added in repository *[20])



Text

1. Drag text files from Windows Explorer and drop into the “Media Database”. (Only valid files can be added in repository *[21])

2. When adding text into the Media Database, a dialogue will pop up and the user can select Back Color and Font. Changes can be previewed in the window.

[20] Acceptable graphic types: .jpg, .bmp. The jpeg format supported is RGB, CMYK is not supported.

[21] Acceptable text type: ASCII text (.txt). You may use any text editor to edit your message and save it as .txt file.

3. Click "**OK**" to complete the text conversion.

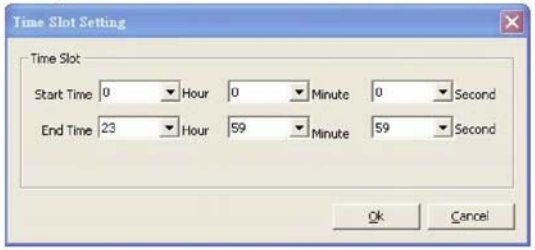
1.7 Schedule Setting

Playback Schedule Setup

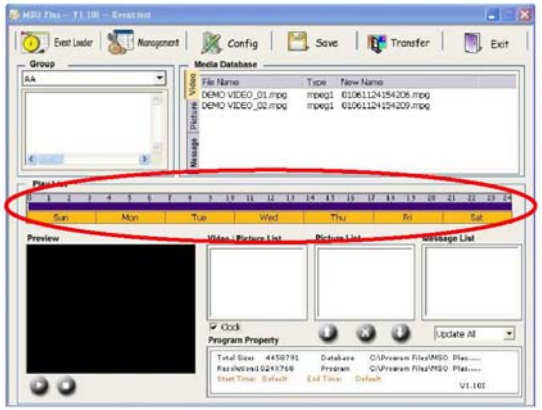
The default time slot of a play list is 24 hours/day. Note that if you would like to have different schedule, you MUST set time slot before you drag media files into play list.

1. Right-click on "**Play Schedule**" (white bar area) and then select "**Add**". A dialog box with "**Time Slot**" will pop up on the screen.

2. Set Start Time and End Time for play list. (The time slot will change to pink color)

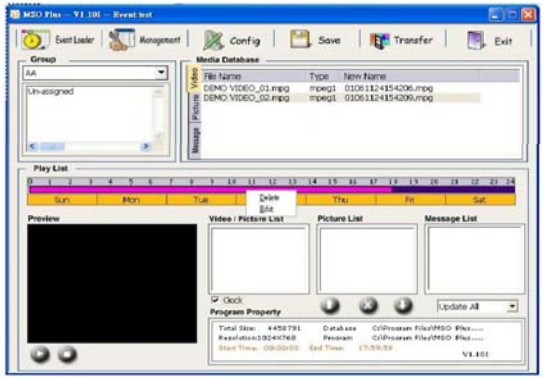


3. Select the day(s) you would like the play list to be played. Orange color indicates the days are selected; you may click on the days to de-select them. From Sunday to Saturday are all selected by default.



Playback Schedule Deletion/Edition

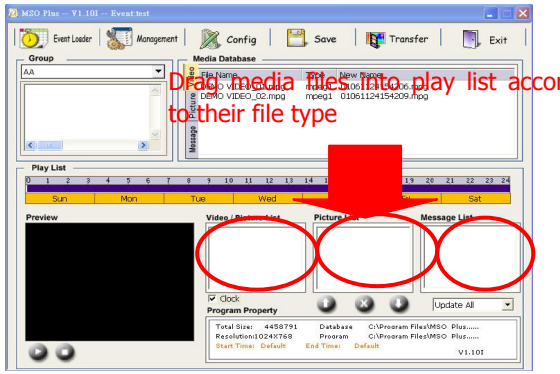
1. To delete or edit, right-click on the time slot block to select "**Delete**" or "**Edit**"*[22].



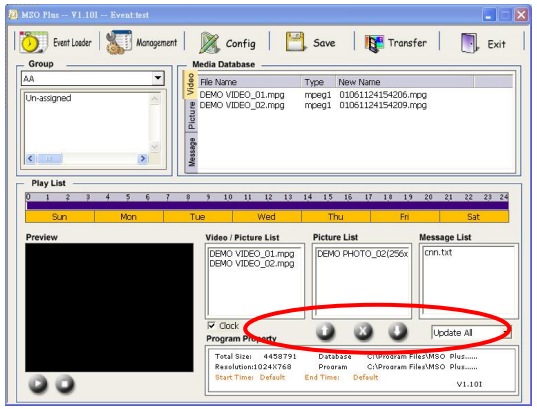
1.8 Play List Edition[23]

1. Drag and drop media file(s) into the Play Lists. Only media files in the repository with a valid format will be accepted*[24].

[22] Time slots can not be overlapped.
[23] Remember always set time schedule before you drag media files into play list.
[24] Video/Picture List can contain video or picture file. The maximum picture size is 1500x1300 for WMSS300 group and 2048x2048 for WMSS500/600 group. For pictures displayed in Picture Zone should be smaller than 1024x768/2.



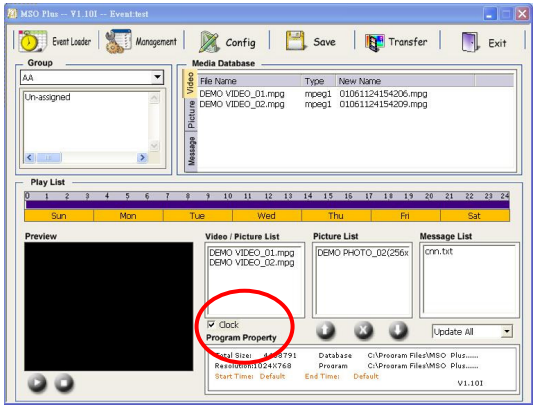
2. Click "**UP**", "**DOWN**", and "**X**"(delete) button on the Play Lists field to change the order of media files in Play Lists.



1.9 Clock Display

The default setting of does not display the clock on screen. Follow the steps below if you would like to clock displayed in the upper-left corner.

1. Click the Clock check box to enable Clock Display in the top left corner of Video/Pic zone.*[25]



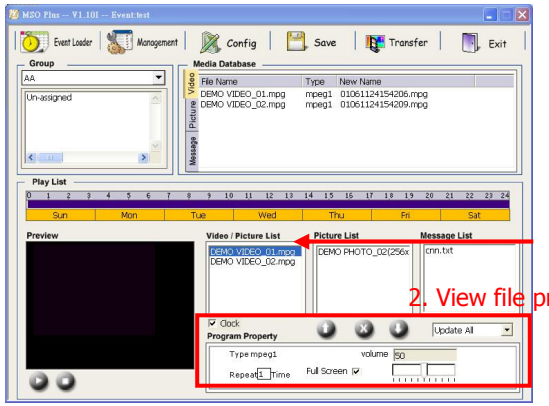
2. Click "**Save**" to save the setting.
3. Click "**Transfer**" to apply the setting.

1.10 Media File Property

1.10.1 *Video*

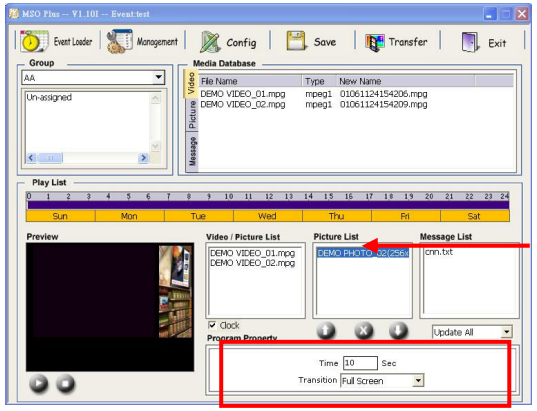
Click on a video file from Video List.
View video property in Program Property area.
You will see file type, file duration, repeat time, and volume.
The default repeat time is 1 and the default volume is 50 *26.

[25] The Clock Display function will be applied to all clients within a group.
[26] The Repeat Time indicates the number of times it should play in the play list. Volume can be set from 0 – 100(max.). **Note that once you ever use remote controller to adjust volume, the volume setting from MSO will be ignored**.



1.10.2 *Picture*[27]

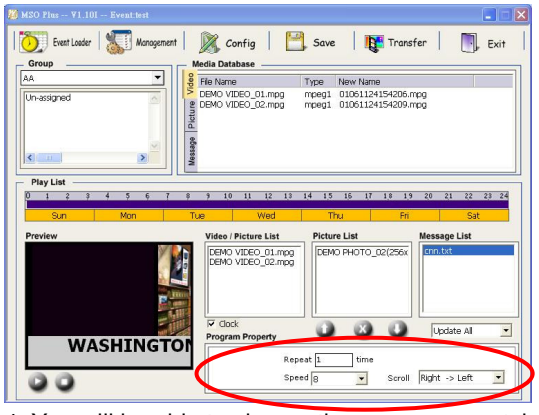
1. Click on a graphic file.
2. View picture property in Program Property area.
3. You will see file display duration and be able to change it.
4. The default time is 10 sec.
5. There are 4 different transition effects (Full Screen, Blind Right/Left, Blind Top/Bottom, and Blend) for you to choose.



1.10.3 *Text*

1. Click on a text file.
2. View message property in Program Property area.
3. The default repeat time is 1 and default speed is 8 pixel*[28].

[27] The duration of picture in Video/Picture zone should be greater than 10 sec to allow graphic decoding.

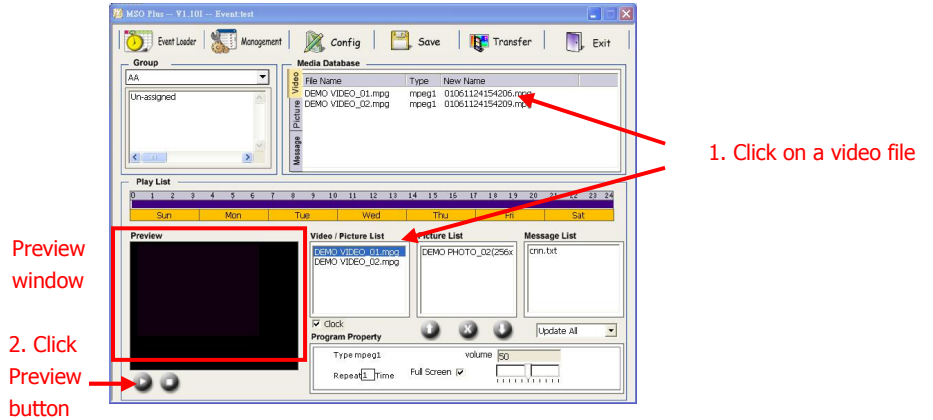


4. You will be able to choose the appearance style of scrollable text message. Five styles are available: Right->Left, Left->Right, Bottom->Top, Top->Bottom, Pop.

1.11 Media Files Preview

1.11.1 *Video*

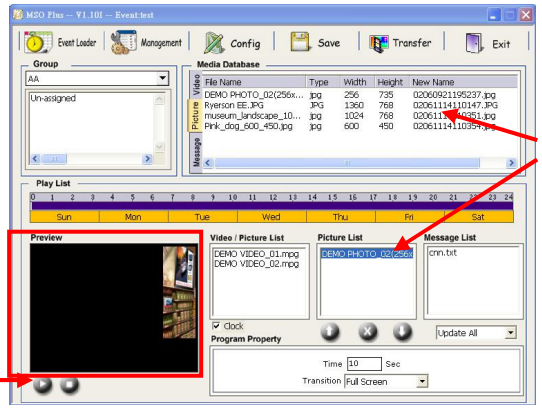
1. Click on the video file you would like to preview (either in Media Database or Video list).
2. Click **Preview** button.
3. The video content will be displayed in the preview window.
4. Use UP/DOWN key on the keyboard to move to other media files.



[28] From 1-15, 1 indicates the slowest speed and 15 indicates the fastest speed.

1.11.2 *Picture*

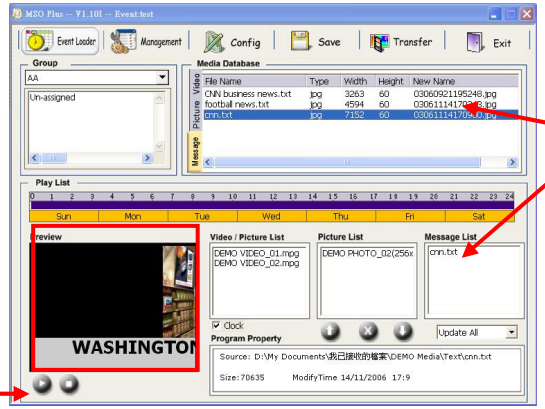
1. Click on the picture you would like to preview (either in Media Database or picture list).
2. The picture will be displayed in the preview window.



3. From Media Database, you can rotate the picture by clicking "**Clockwise**" or "**Counterclockwise**".
4. Click "**Confirm**" to confirm the change.

1.11.3 *Message*

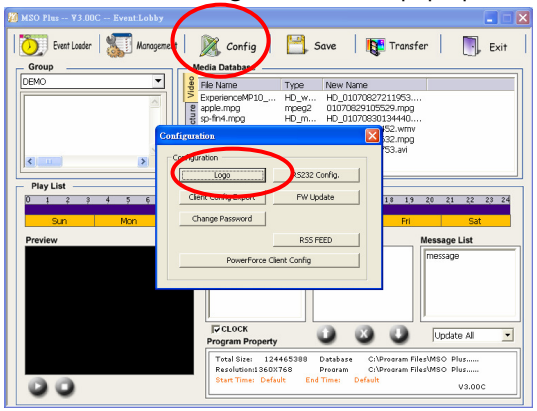
1. Click on the text file you would like to preview (either in Media Database or picture list).
2. Click "**Preview**" button.
3. The message will be displayed in the preview window.



1.12 Program Configuration

1.12.1 *Boot-up Logo Setup*

1. If you would like to change system boot-up logo, please click the "**Config**" button, then click "**Logo**" button from pop-up window.



2. Browse to the picture you would like to use as logo.*[29]

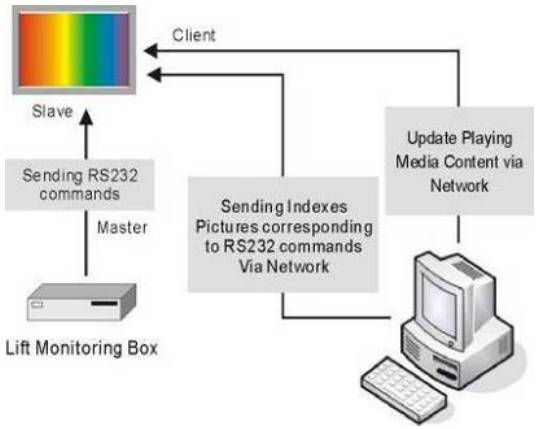
1.12.2 *RS232 Configuration (Optional)*[30]

RS232 is a channel that you can send pictures to be stored in Network Player. When a correct RS232 command code is sent during operation, Network Player will display a picture corresponding to the index.*[31]

Application (Elevator)

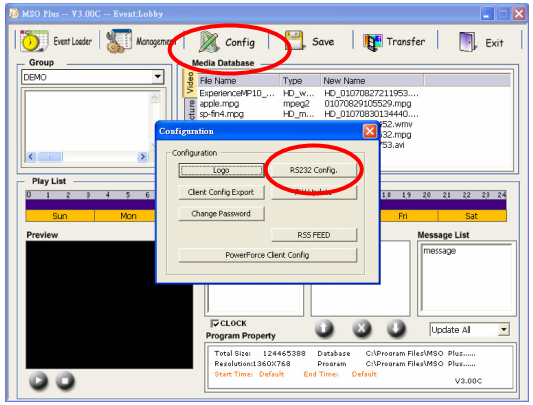
Lift industry uses RS232 to display lift status or show company logo.

[29] Acceptable picture type: jpeg. Resolution is limited no bigger than 720 x 480.
[30] You will need a crossover RS232 cable (switch 2, 3 pin) if you would like to use PC as simulation machine sending commands.
[31] The picture should be displayed over video area. If you place the picture over graphic area, the latter picture will cover your RS232 picture.



Picture called via RS232 command

1. If you would like to configure RS232 index, please click the "**Config**" button, then click "**RS232 Config**" button from the pop-up window.

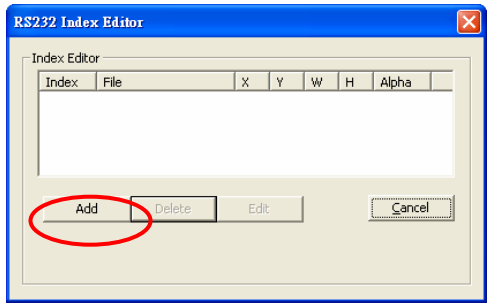


Index Edition

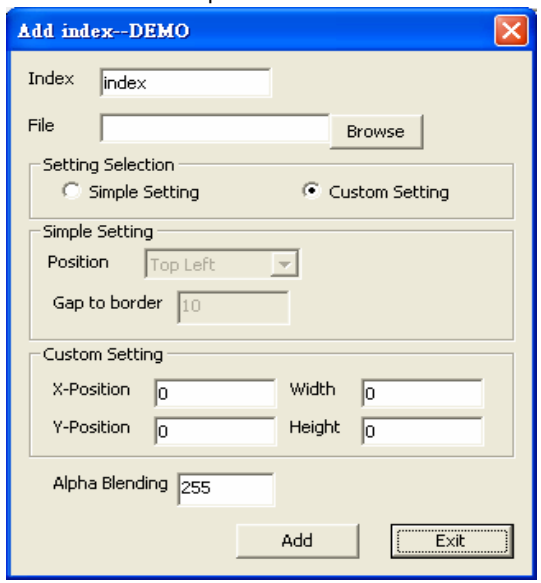
The Index Editor is a tool where you can add, delete, and edit index.

Add

1. Click "**Add**" to start adding an Index.



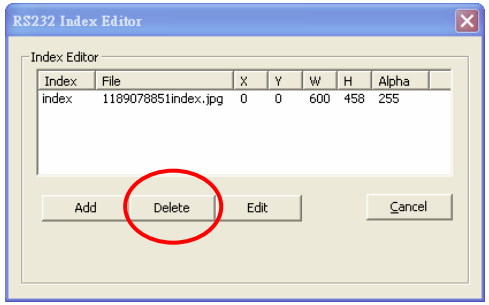
1. Enter Index name.
2. Browse to the picture for this index.



3. Select setting. In Simple Setting, you have choices to place the picture in Top Left, Top Right, Bottom Left, or Bottom Right. If you choose Custom Setting, you can specify the X-Position, Y-Position, Width, and Height to start posting the picture.
4. Alpha Blending indicates the degree of transparency. The value of Alpha Blending is from 0 to 255, 0 as no transparency to black color and 255 as totally transparent.

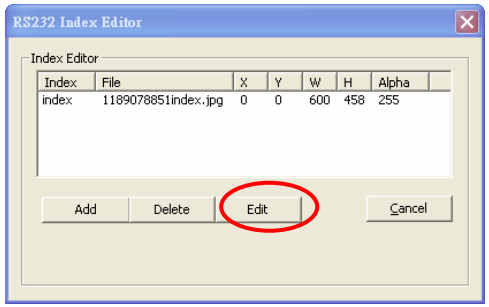
Delete

1. Click the index that you would like to delete.
2. Click "**Delete**" to delete the index.

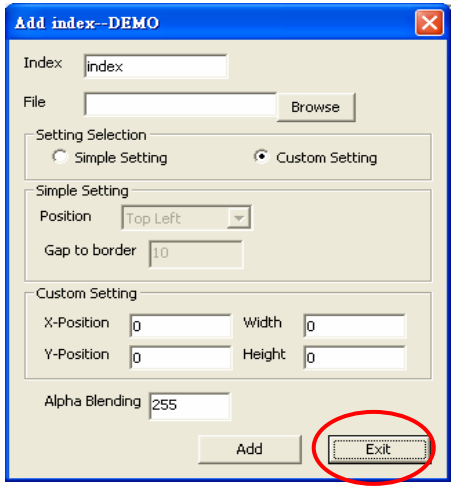


Edit

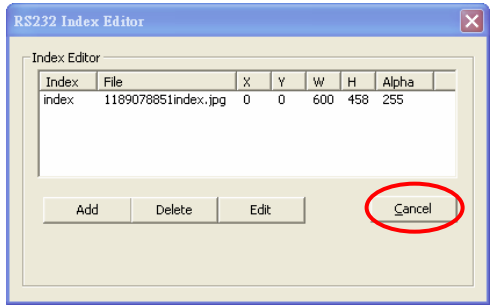
1. Click the index that you would like to edit.
2. Click "**Edit**" to edit the index.



3. Make modifications.
4. Click "**Edit**" to save changes.



5. Click "**Save**" to save all the changes.



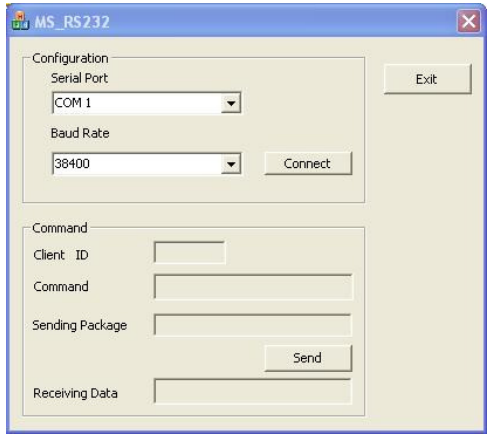
6. Click "**Exit**" to exit RS232 Index Editor.

Sending RS232 Command

You will find a tool from installation CD to simulate RS232 command.

1. Double-click on MS_RS232.exe to execute the application.

2. Choose Serial Port and Baud Rate*[32] from drop-down menu and click **Connect**.



[32] Baud rate indicates the number of bits per second is transmitted. Normally five values can be chosen: 9600, 19200, 38400, 57600, and 115200. The default baud rate of Network Player is 38400.

3. If the connection is established, you will be able to type in Client ID and Command. The Client ID is an identification number that you give each client from MSO.

Available Command Table

Master command	Command description
"TEST"	Test a specify slave exist or not
"PASTE n"	Paste an index command. The index file and parameters are specified in a script file which is downloaded from master via Ethernet. n is the index string.
"PLAY_VIDEO"	Video start playing
"STOP_VIDEO"	Video stop playing
"PLAY_NEXT"	Video skip to next file
"PLAY_PREV"	Video skip to previous file
"PLAY_FORW"	Video forward
"PLAY_BACKW"	Video backward
"CLOSE n"	Erase the pasted picture. n is the index string

1.12.3 *Password*

1. If you would like to change password, please click the "**Config**" button, then click "**Change Password**" button from the pop-up window.
2. Enter the old password.
3. Enter the new password, then re-enter the new password to confirm it.
4. Click "**OK**" to setup the new password.

1.12.4 *Firmware update*

Ever since a while, we add new features in MSO Plus to meet customer's requirement. You can fully utilize those features by updating the latest firmware. **Note that all media contents will be deleted if update firmware via USB. Choose LAN as the update option if you would like to keep media contents.**

Check Firmware Version

Depends on the display size and the existent version of firmware in your Network Player Unit, you can choose the most convenient way to upgrade firmware. You will be able to check the firmware version of Network Player in the beginning of system boot up.

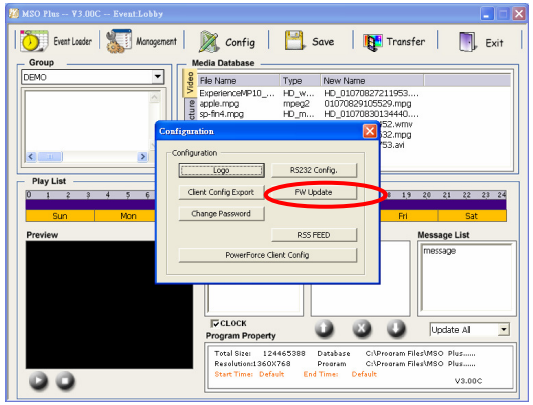
Suggest Way of Firmware Update

	FW version 1.03 or earlier	FW version 1.04 or later
7" Network Player	Not Applicable	LAN
Network Player above 7" **Network Player BOX**	USB	USB / LAN

Please refer to WMSS series user manual if you would like to update firmware via USB flash drive.

1.12.5 *Firmware Update via Ethernet*

1. If you would like to update firmware via Ethernet, please click the "Config" button, then click “FW Update” button from the pop-up window.



2. Choose a group for updating.
3. Uncheck the “**Format Storage Device**” checkbox if you do not want to format internal storage.*[33]
4. Click “**Browse**” to select the firmware (.tar) you would like to update.
5. Click “**Start**” to begin the firmware updating process.

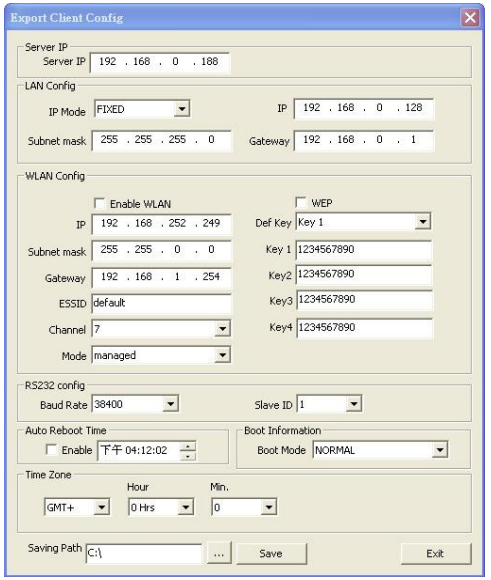
6. When the updating is complete, click “**Exit**” to close the Update Client Firmware window.

[33] Note that all media content will be deleted if you choose to format the storage device.

1.12.6 *Export Client Config to Local Drive*

This function is really convenient for you to configure client settings without using a crossover cable or a hub. Configurations you can make with this function including the Server IP that the client should connect to, client LAN settings, client WLAN settings, and client time zone.

1. Click the "**Config**" button, and then click the “**Client Config Export**” button from the pop-up window.
2. Make setting changes.
3. Browse to the location (USB flash drive) you would like to save the files.
4. Click the “**Save**” button.
5. Click the “**Exit**” button.



6. Take the USB flash drive and plug it into Network Player unit.
7. Reboot the Network Player unit to apply settings.

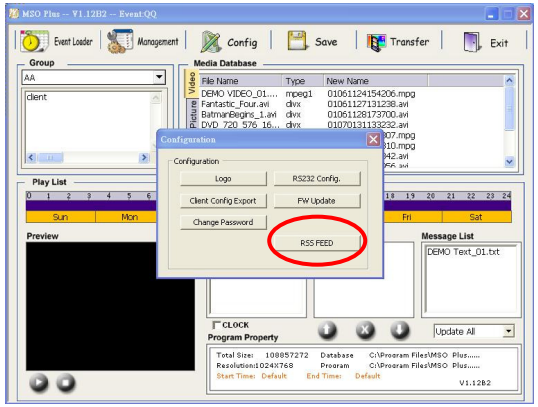
1.12.7 *Real-Time RSS Feed (Really Simple Syndication)*

RSS is a family of web feed formats used to publish frequently updated content such as blog entries, news headlines or podcasts.

Web browser Internet Explorer (IE) is necessary for the successful use of RSS. Internet Explorer 7 (IE7) supports re-directing URL. If you use web browser version earlier than IE7, the URL must be a real URL without any re-direction.

Note that what RSS message will be displayed in client will depend on the Event and the Group that the client belongs to. Therefore, user has great flexibility to set different RSS URL according to different day (Event/Group).

1. If you would like to show real-time RSS message, please click the "Config" button, then click "**RSS FEED**" button from the pop-up window.

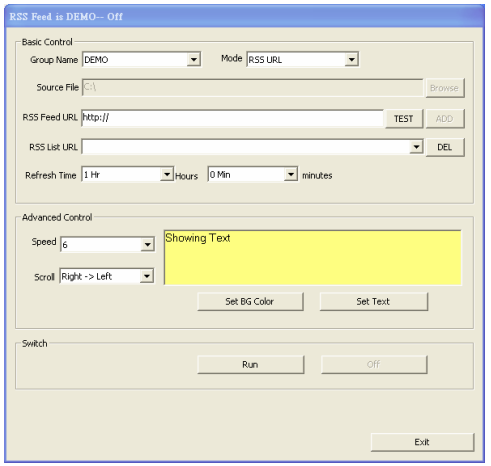


2. Choose a group from drop-down menu and the mode you would like to run RSS.

2a. Browse to the source file (.txt) if you would like to show message from the local file in local PC.

2b. Enter RSS Feed URL and click the "**TEST**" button to test the validation of the RSS URL. If the URL is valid, then you can click the "**ADD**" button to add it to RSS List URL. You can use the drop-down menu to check the RSS URL playlist. Each RSS URL will be playing one after the other.

3. Choose the Refresh Time to set up the frequency of message refresh interval.



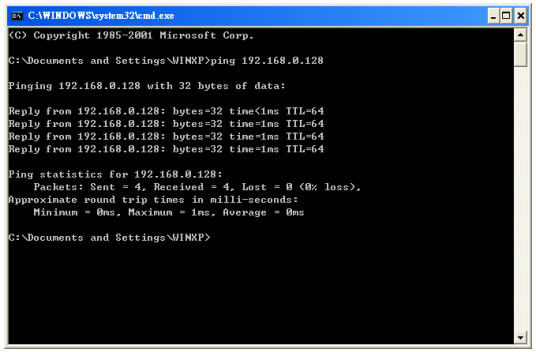
4. Choose message speed, scroll direction, background color, and text font in Advanced Control area.

5. Click "**Run**" button to start real-time RSS message. The RSS message will be running continuously until you click "**Off**" button.

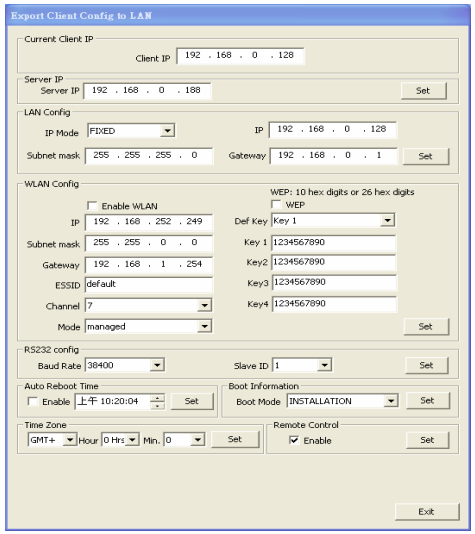
1.12.8 *PowerForce Client Config*

Normally in MSO Plus, server can not change client's network settings unless the client is connected to server. However, **PowerForce Client Config** allows you to change client's network settings as long as the server can find (ping) the client.

1. Open command prompt window and ping the client to ensure the connection is established.


C:\WINDOWS\system32\cmd.exe
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\WINXP>ping 192.168.0.128
Pinging 192.168.0.128 with 32 bytes of data:
Reply from 192.168.0.128: bytes=32 time<1ms TTL=64
Reply from 192.168.0.128: bytes=32 time=1ms TTL=64
Reply from 192.168.0.128: bytes=32 time=1ms TTL=64
Reply from 192.168.0.128: bytes=32 time=1ms TTL=64
Ping statistics for 192.168.0.128:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\Documents and Settings\WINXP>

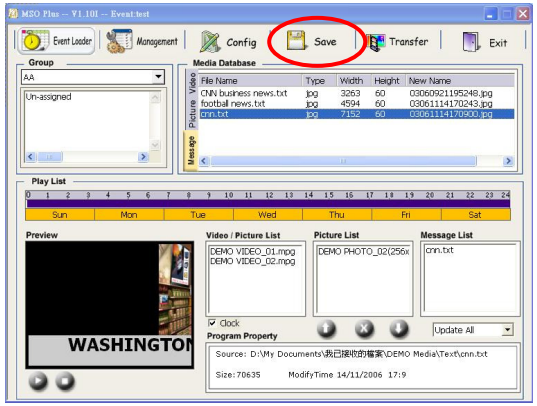
2. Change Client's network settings, including Server IP, LAN Config, WLAN Config, RS232 Config, Auto Reboot Time, Boot Information, Time Zone, and Remote Control.



3. Reboot the client to apply those setting changes.

1.13 Save Program

1. Click the "**Save**" button when you finish editing the Play List (All media files are saved in the folder).

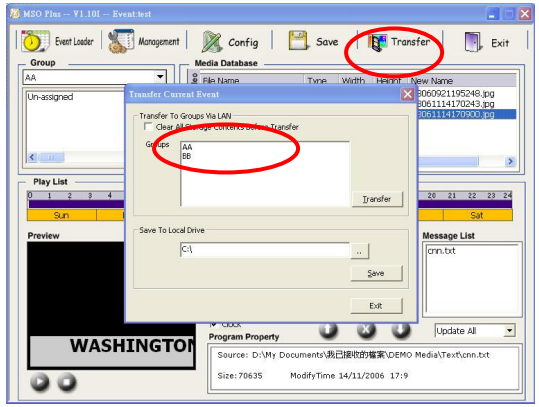


1.14 Transfer

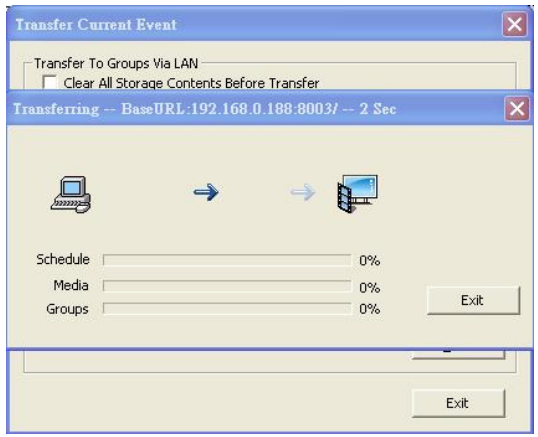
1.14.1 *Single IP*

1. Click the "**Transfer**" button.
2. Select the group you would like to send media content.

3. Click the "**Transfer**" button to initiate transferring.



4. A pop-up window will inform you that the transfer is complete. Click the "**OK**" button to close the transfer window*[34].



1.14.2 *Local Drive(for Network Player BOX / Integrated Display above 7")*

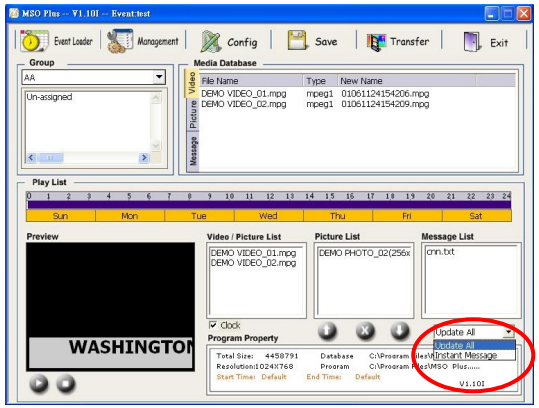
1. Click the "**Transfer**" button.
2. Select the group you would like to send media content.
3. Browse to the USB flash drive plugged in your computer.
4. Click "**Save**" to save the program in your USB flash drive.*[35]

[34] If in any circumstance the network is disconnected during Media Transfer process, the Network Player will automatically delete incomplete playlist and media data in the beginning of boot-up procedure. Network Player will then play the old playlist.

1.15 Instant Message

In Instant Message Mode, the message can be updated independently. However, the message will run from right side to left side only once, and then it turns back to the original message.

1. Click on the drop-down menu and choose the **Instant Message** option.

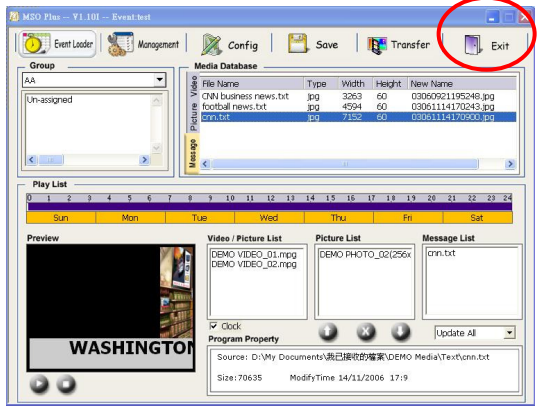


2. Drag message(s) to the Message List.
3. Click the "**Save**" button to save the change.
4. Click the "**Transfer**" button and choose transferring to single client, group, or local drive (USB flash drive).

[35] The "Local Drive" is limited to USB Flash disk only. Take the USB Flash disk with play list program saved and insert it to the USB slot of Network Player. Network Player will clone the program in the USB Flash drive into its IDE storage automatically after power on.

1.16 Exit

1. Click the "**Exit**" button to exit MSO Plus.



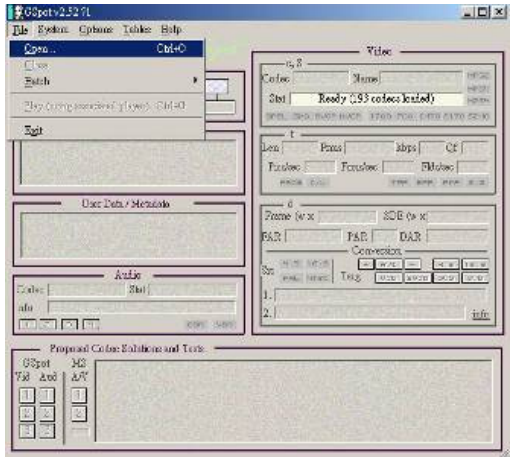
APPENDIX A

How to Get Codec Information

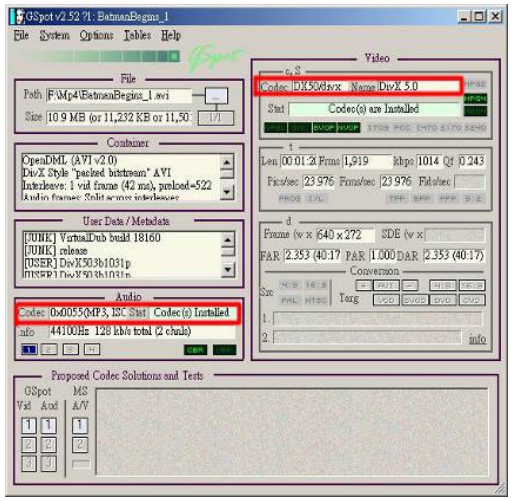
1. We suggest you download and install the “K-Lite code pack 2.50 Full” from http://www.free-codecs.com/download/K_Lite_Codec_Pack.htm to your PC if you would like to see the CODEC information of your media file.

2. After successfully install “K-Lite code pack 2.50 Full” application. Please open the “GSpot Codec Information” application from ***Starts->Programs->K-Lite Codec Pack->Tools->GSpot Codec Information***

The GSpot dialog will appear. Open the media file that you want to get codec information from ***File->Open***



The “GSpot” application will display the detail information about the media file. You can get the audio and video codec information from “Audio” and “Video” sections.



APENDIX B

Video Editing Tutorial

1. Goals and Objectives

Video cut by some utilities doesn't have very good compatibility with Network Player series. In this document, we will introduce the utility that has been tested and works well in Network Player series. The methods of splitter, rotate and encode will be introduced step by step in the following sections.

2. Utility

Before we start, please download the convert utilities "VirtualDub-Mpeg2", "VirtualDub" and necessary codec pack: "K-Lite code pack".

2.1 What is virtualdub?

VirtualDub is a video capture/processing utility for 32-bit Windows platforms (95/98/ME/NT4/2000/XP), licensed under the GNU General Public License (GPL). It lacks the editing power of a general-purpose editor such as Adobe Premiere, but is streamlined for fast linear operations over video. It has batch-processing capabilities for processing large numbers of files and can be extended with third-party video filters. VirtualDub is mainly geared toward processing AVI files, although it can read (not write) MPEG-1 and also handle sets of BMP images(From http://www.virtualdub.org/index)

Download utilities

VirtualDub

http://virtualdub.sourceforge.net/

VirtualDub-Mpeg2:

VirtualDub mod with MPEG2 (SVCD, DVD, VOB) import support.

http://www.free-codecs.com/download/VirtualDub-MPEG2.htm

2.2 What is K-Lite code pack?

K-Lite Codec Pack is a collection of codecs and related tools. Codecs are required to encode and/or decode (play) audio and video. The K-Lite Codec Pack is designed as a user-friendly solution for playing all your movie files. With the K-Lite Codec Pack you should be able to play 99% of all the movies that you download from the interne

Download site : http://www.free-codecs.com/download/K_Lite_Codec_Pack.htm

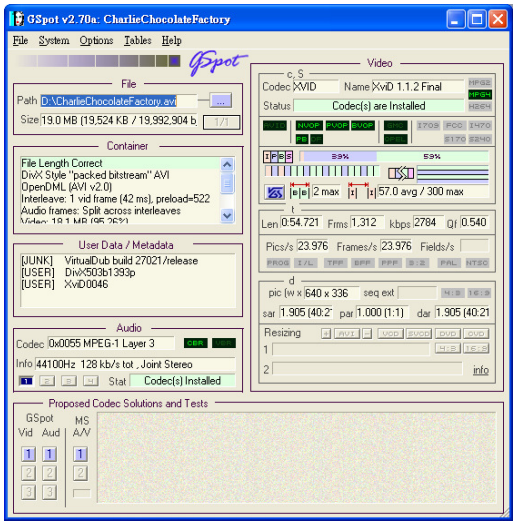
3. Video Editing

In this section, the split, rotate, and compression will be introduced. Video splitter can help you split large file into smaller video clips, and you also could get the part you want. The rotate function could let video rotate 90 degree to right or left, or rotate around by 180 degree. To let the size of video become smaller and keep its quality, the Mpeg4(xvid) will be used.

3.1 Codec Information

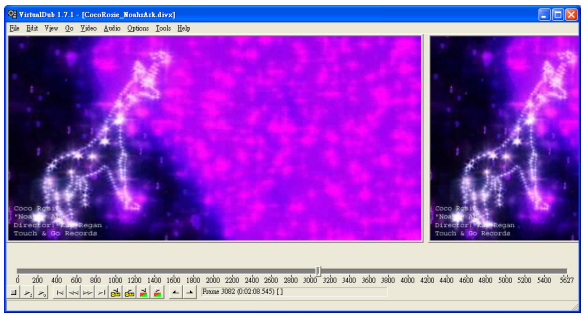
To understand what the codec the media is, you could use the "**Gspot codec information**" utility. From "**Start->Program->K-Lite codec Pack->Tools->Gspot codec information**."

1. Click "File->Open" to open the video file.
2. Then you could get the codec information about the video file.



3.2 Split and Cut Video

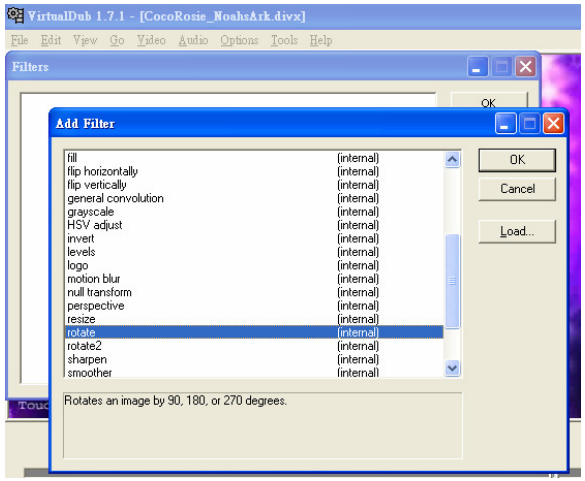
1. Execute the VirtualDub or VirtualDub Mpeg2 according to you video type.
2. Then select "***File-> Open video file"*** to open the video file.
3. Drag the slider below the panes to change the current position within the video.
4. Drag the slider to start position, then press the to mark start.
5. Drag the slider to end position, then press the to mark end.



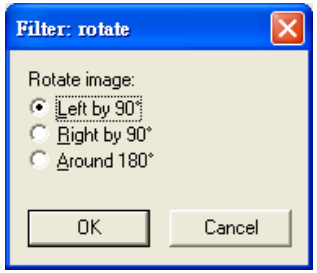
<Pic 1>

3.3 Rotate the Video

1. Select "***Video->Filters***", and click "***Add***" button on the **Filters** dialog.
2. In "**Add Filter**" dialog (Pic2), please select "**rotate**".
3. After click "**OK**" in the "**Add Filter**" dialog, the "**Filter: rotate**" dialog will appear. (Pic3)
4. According to your need to select the rotate degree.



<Pic 2>

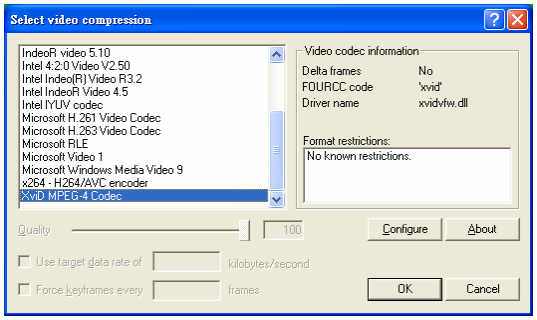


<Pic 3>

3.4 Compress Video

Video Setting

1. Please select "Video-> Compression", and then the "Select video compression" dialog will appear (Pic4).



<Pic 4>

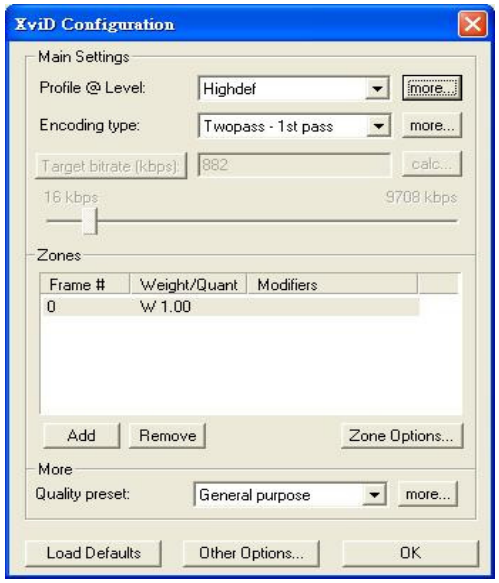
2. In the list on "Select video compression" dialog, please select "Xvid MPEG-4 Codec".
3. After click Configure button. The "Xvid Configuration" dialog appears (pic5).
4. In the Encoding type, there are three types in the selection. We suggest user select single pass or twopass.

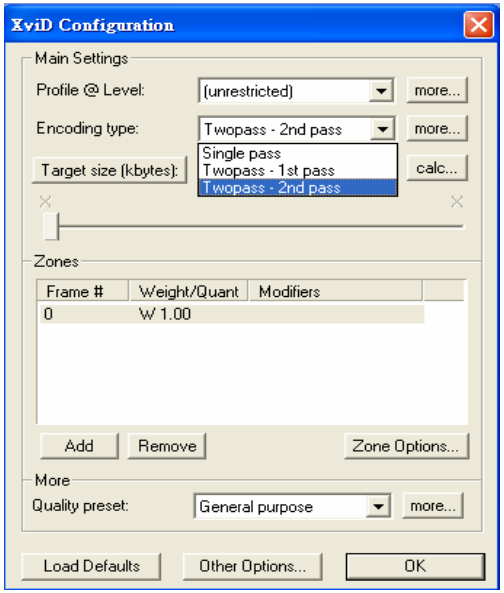
Pass	**Size**	**Compress time**	**quality**
Single pass	Small	Shot	General
Twopass	big	long	good

5. When select Twopass, it needs to compress the video two times; Two pass -1st pass and then Two pass 2nd pass.

6. Set Profile @ Level to Highdef, and Encoding type: to Twopass – 1st pass.

7. Then please follow the next section to set audio and save the file.
8. When 1st pass procedure has done, please do 2nd pass by setting the Encoding type to 2nd pass, then save to avi again.

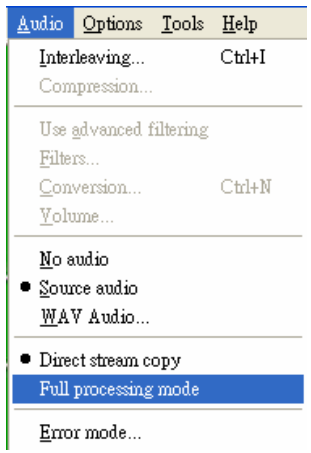


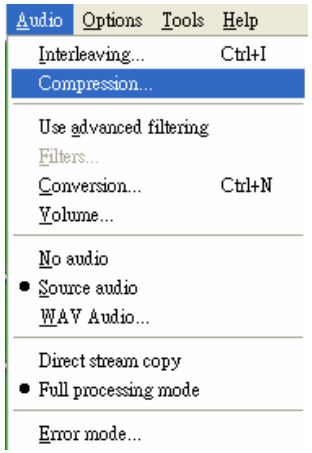


Pic 5

Audio Setting

1. Please select " Audio->Full procession mode" (Pic6) .
2. Then select " Audio -> Compression" (Pic7).

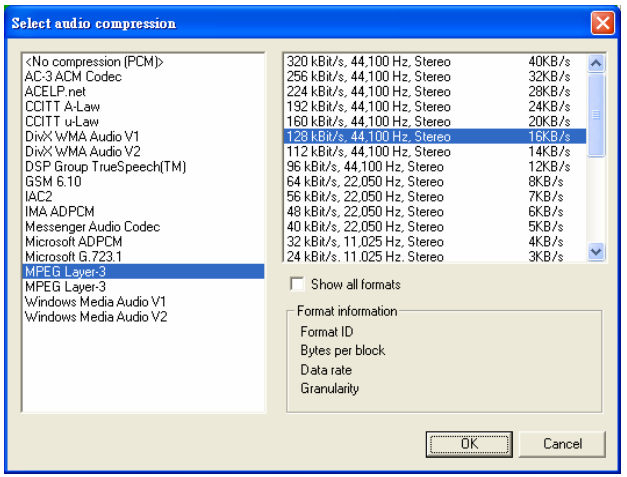




<Pic6> <Pic7>

3. After that, the "Select audio compression" dialog will appear.
4. We want use mp3 to our audio codec, so please select MPEG Layer-3 in the left list.
5. In the right list, please select "128 kBit/s, 44,100Hz, Stereo 16KB/s".
6. Then click "OK" to accept the setting and exit the configuration dialog

.

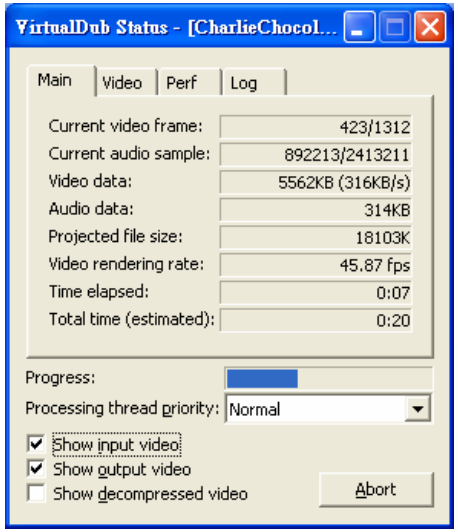


<Pic8>

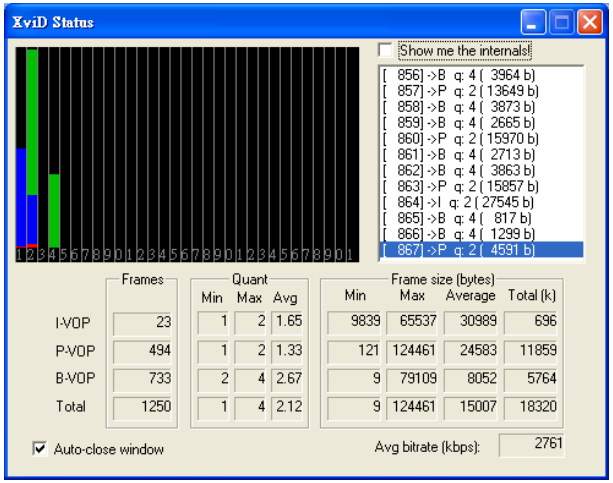
3.5 Create Target File

Finally, we are going to create the target file.

1. Please select “File-> Save as AVI…”, and select the path where the destination file will be put.
2. The Virtualdub will start to compress the video file according to above setting.
3. You also could see the Status window when Virtualdub compress the video (Pic9, Pic10)..



<Pic9>



<Pic10>